87525

Cyclopropanes and Cyclobutanes. XIV. Phenyl Cyclopropanes With Substituents in the Para Position of the Benzene Cycle

S/079/60/030/012/005/027
B001/B064

nitrating phenyl cyclopropane, with subsequent reduction of the nitro group to the amino group (Ref. 1), served as the initial product. The replacement of the latter in p-amino phenyl cyclopropane by other substituents was carried out by diazotization. Thus, p-hydroxy-p-chloro- and p-bromophenyl cyclopropane results:

$$p\text{-}H_2N\text{-}C_6H_4\text{-}CH\text{-}CH_2 \longrightarrow p\text{-}X\text{-}C_6H_4\text{-}CH\text{-}CH\text{-}CH_2 \quad (X = OH, Cl, Br)$$

(CH$_2$ bridge)

p-amino-phenyl cyclopropane was also used for synthesizing p-dimethyl amino phenyl cyclopropane:

$$p\text{-}H_2N\text{-}C_6H_4\text{-}CH\text{-}CH_2 \xrightarrow[\text{benzene, } 80^\circ C]{(CH_3O)_2SO_2} (CH_3)_2N\text{-}C_6H_4\text{-}CH\text{-}CH_2$$

(CH$_2$ bridge)

A study of the Raman spectra of the phenyl cyclopropanes obtained showed that no unsaturated compounds had been added; intensive frequencies appeared at 1600 cm^{-1}, which are characteristic of the aromatic cycle, as well as bands (1200-1260 cm^{-1}) indicating the presence of the phenyl cyclopropane molecule (Refs. 5, 6). The ultraviolet absorption curves of aryl cyclopropanes (Diagrams 1 and 2) showed the same character as those of p-tolyl

Card 2/3

SHABAROV, Yu.S.; LEVINA, R.Ya.; POTAPOV, V.K.; OSIPOV, A.M.; TRESHCHOVA, Ye.G.

Cyclopropanes and cyclobutanes. Part 14: Phenylcyclopropanes with substituents in the para positions of the benzene ring. Zhur. ob. khim. 30 no.12:3874-3876 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet.
(Benzene)

POTAPOV, V.K.

Breakup of CO^+ and CO_2^+ ions colliding with neon and helium atoms.
Zhur. fiz. khim. 34 no.2:444-445 F '60. (MIRA 14:7)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova, Moskva.
(Ions) (Neon) (Helium)

SHABAROV, Yu.S.; LEVINA, R.Ya.; POTAPOV, V.K.

Cyclopropanes and cyclobutanes. Part 25: Interaction of phenylcyclopropane with pyridine sulfotrioxide.
Zhur.ob.khim. 32 no.10:3184-3188 O '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Benzene)
(Pyridinesulfonic acid)

SHABAROV, Yu.S.; POTAPOV, V.K.; LEVINA, R.Ya.

Cyclopropane and cyclobutanes. Part 35: Nitration of 1,2-diphenylcyclopropane. Zhur.ob.khim. 33 no.12:3893-3897 D '63. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

SHABAROV, Yu.S.; POTAPOV, V.K.; LEVINA, R.Ya.; TRESHCHOVA, Ye.G.

Cyclopropanes and cyclobutanes. Part 26: Stereoisomeric 1,2- and 1,3-methylphenylcyclobutanes. Vest.Mosk.un. Ser.2:Khim. 18 no.1:61-65 Ja-F '63. (MIRA 16:5)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Cyclobutane) (Isomers)

S/189/63/000/001/008/008
D204/D307

AUTHORS: Shabarov, Yu. S., Potapov, V. K., Levina, R. Ya. and Treshchova, Ye. G.

TITLE: Cyclopropanes and cyclobutanes. XXVI

PERIODICAL: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 1, 1963, 61-65

TEXT: Stereoisomeric 1-methyl-2 phenylcyclobutanes and 1-methyl-3-phenylcyclobutanes were studied spectroscopically and an attempt was made to determine the cis- and trans-configurations. Raman bands at ~1200 cm^{-1} of all isomers were slightly higher than the corresponding lines for alkylbenzenes. Cis- and trans-1-methyl-2-phenylcyclobutanes could not be distinguished in the Raman spectra. In the case of 1-methyl-3-phenylcyclobutanes, the higher boiling isomer A exhibited a broad, fairly intense band at 872 cm^{-1}, whilst the lower-boiling isomer B showed a corresponding band at 854 cm^{-1}. The ~1200 cm^{-1} and 1600 cm^{-1} intensities were also higher

Card 1/2

in B, a property characteristic of trans-forms. Uv spectra of 1-methyl-2-phenylcyclobutanes in iso-octane showed that isomer A, distinguished by higher physical constants, absorbed more strongly in the 225 - 250 mμ region than the other isomer, B. The same was true of the A-form of 1-methyl-3-phenylcyclobutane, though to a lesser extent. Control tests with 1,2-diphenylcyclopropanes, whose configurations were established chemically, showed that trans-forms absorbed more strongly in the uv. Configurations of 1-methyl-2-phenylcyclobutanes may thus be assigned only from uv absorption spectra, whilst the configurations of 1-methyl-3-phenyl-cyclobutanes remain unresolved, since Raman and uv spectra gave contradictory indications. L. A. Kazitsyna measured the uv absorption. There are 3 figures and 1 table.

ASSOCIATION: Kafedra organicheskoy khimii (Department of Organic Chemistry)

SUBMITTED: June 28, 1961

SHABAKOV, Yu.S.; POTAPOV, V.K.; LEVINA, I.Ye.

Ortho- and para-substituted phenylcyclopropanes. Zhur. ob. khim. 34 no.9:3127-3128 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

POTAPOV, V.K.; ARSENT'YEV, A.G.; KAZAKEVICH, V. Ye.; PISKUNOV, A.K.; CHIZHEVSKAYA, N.N.

Automatic recording of ionization curves. Prib. i tekh. eksp. (MIRA 18:1)
9 no.3:123-125 My-Je '64

SHABAROV, Yu.S.; POTAPOV, V.K.; LEVINA, R.Ya.

Ceclopropanes and cyclobutanes. Part 39: Electron-donor properties of small rings. Zhur. ob. khim. 34 no.9:2832-2834 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

SHABAROV, Yu.S.; POTAPOV, V.K.; KOLOSKOVA, N.M.; POLTERENKOVA, A.A.; SVIRINA, V.S.; LEVINA, R.Ya.

Cyclopropanes and cyclobutanes. Part 38: Migration of 2-substituents in phenylcyclopropanes. Zhur. ob. khim. 34 no.9:2829-2832 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

ACCESSION NR: AP4041032 S/0120/64/000/003/0123/0125

AUTHOR: Potapov, V. K.; Arsent'yev, A. G.; Kazakevich, V. Ye.; Piskunov, A. K.; Chizhevskaya, N. N.

TITLE: Automatic recording of ionization curves

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 123-125

TOPIC TAGS: spectrometer, mass spectrometer, MKh-1303 mass spectrometer, ionization curve recording

ABSTRACT: A device for automatic recording of ionization curves (up to one minute) in an MKh-1303 mass spectrometer is described. The ion-source electron gun generates 5—30-ev electrons for ionizing gases or vapors. The ionization and ion-extraction processes are time-separated. Resonance amplification of the ion current corresponding to the electron ionization with a specified energy scatter, synchronous detecting, and the direct recording of ionization

Card 1/2

ACCESSION NR: AP4041032

curves provided a higher sensitivity and accuracy of the mass spectrometer in measuring ion-appearance potentials; also, the speed of taking ionization curves was increased compared to the known manual method of "quasi-monokinetization" of electrons. Orig. art. has: 3 figures.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut (Scientific Research Physico-Chemical Institute)

SUBMITTED: 05Jun63 ENCL: 00

SUB CODE: GC, GP NO REF SOV: 003 OTHER: 002

Card 2/2

POTAPOV, V.K.; SHABAROV, Yu.S.; LEVINA, R.Ya.

Cyclopropanes and cyclobutanes. Part 37: Capacity of arylcyclopropanes for complex formation with mercury acetate. Zhur. ob. khim. 34 no.8:2512-2517 Ag '64. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet.

L 53757-65 EWT(l)/EWT(m)/EWP(c)/EWA(w)-2/EWP(j)/T/EWA(m)-2 Pc-4/Pab-10/
Pr-4 IJP(c) RM
ACCESSION NR: AP5010172 UR/0020/65/161/002/0406/0409 50 47

AUTHOR: Shigorin, D. N.; Medvedev, S. S.; Potapov, V. K. 21 B

TITLE: Role of $n-\pi^*$ transitions in the processes of the ionization and decomposition of compounds

SOURCE: AN SSSR. Doklady, v. 161, no. 2, 1965, 406-409

TOPIC TAGS: electron transition, ionization curve, anthraquinone molecule, fluorenone molecule, cation radical, mass spectrographic analysis, carbonyl group, chromophoric group /MKh-1303 mass spectrometer

ABSTRACT: With the aim of elucidating the role of $n-\pi^*$ transitions in the processes of the ionization and decomposition of molecules, the author investigated the ionization curves and occurrence potentials of ions of anthraquinone and fluorenone by the electron shock method. The investigations were performed with the aid of a MKh-1303 high-resolution chemical mass-spectrometer adapted to measuring the ionization potentials of molecules by the electron quasimonokinetization method. The first ionization potentials of the molecules of anthraquinone and fluorenone correspond to the energies of

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L 53757-65
ACCESSION NR: AP5010172

separation of electrons from an undivided pair of oxygen atoms, while the second potentials correspond to the separation energies of π-electrons. This conclusion is in agreement with the fact that the first longwave band of the absorption spectrum of the anthraquinone molecule corresponds to the π→π* electron transition and the second band, to the π→π* electron transition. For fluorenone the yield of ions formed by the separation of the n-electron from a pair of oxygen electrons is 2-3 times smaller than for anthraquinone. This may be related to the difference in their ionization potentials ($I_\pi - I_n$) and the number of π-electrons of the investigated molecules per chromophoric group. The principal processes of the decomposition of anthraquinone molecules, as indicated by mass-spectrographic analysis, are the processes of the isolation of neutral CO groups from the molecules and formation of $C_6H_4COC_6H_4^+$ and $C_6H_4C_6H_4$ ions. Their occurrence potentials, as well as the occurrence potentials of the $C_6H_4C_6H_4^+$ ion from fluorenone, are tabulated. It is assumed that during the decomposition of the anthraquinone molecule and absorption of an energy of 10.39 ev by that molecule a single CO group is released. In the event of the absorption of an energy of 11.02 ev, two carbonyl groups are successively split off that molecule. One group is released by fluorenone at 10.14 ev. In both cases there form ions of

Card 2/3

L 53757-65
ACCESSION NR: AP5010172

an identical structure corresponding to the cation-radical of o-diphenylene. This may account, e.g., for the mechanism of the decomposition of alcohols. The molecules of these compounds, when in specified states, decompose as a result of the exchange interaction between the unpaired electrons of the oxygen atom and the electron of the adjacent carbon atom, which leads to the formation of a new bond between carbon and oxygen and the disruption of the C-H or C-C bond and the concomitant formation of the corresponding radicals $R\dot{C}H\text{-}\dot{O}H$ and cations $R\text{-}HC = \overset{+}{O}\text{-}H$. Orig. art. has: 5 figures, 1 table.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (L. Ya. Karpov Physicochemical Institute)

SUBMITTED: 31Aug64 ENC: 00 SUB CODE: OC, GC

NO REF SOV: 008 OTHER: 003

Card 3/3

POTAPOV, V.M.

Preparation of bromopentene (4,2) and its utilization in the magnesium-organic synthesis. Nauk.zap.L'viv.un. 9:117-125 '48. (MLRA 10:5)

1.Kafedra organicheskoy khimii.
(Crotonaldehyde) (Pentene)
(Grignard reagents)

POTAPOV, V. M.

USSR/Chemistry - Acrylic Acid: VII, N-Ethyl-N-Phenyl-Beta-Aminopropionitrile and Some of Its Derivatives," A. P. Terent'yev, A. N. Kost, V. M. Potapov, Lab of Org Chem imeni Academician N. D. Zelinskiy, Moscow State U, 5 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 1, 1948

On samples of ethylaniline, studies were made of the reaction of condensation of acrylonitrile with aromatic amines. Show that better results are obtained, up to 70% of calculated production, when components are heated in the presence of acetic acid. Nature of the obtained N-ethyl-N-phenyl-beta-aminoporpionitrile was saponified, and corresponded to products of amides and acids.

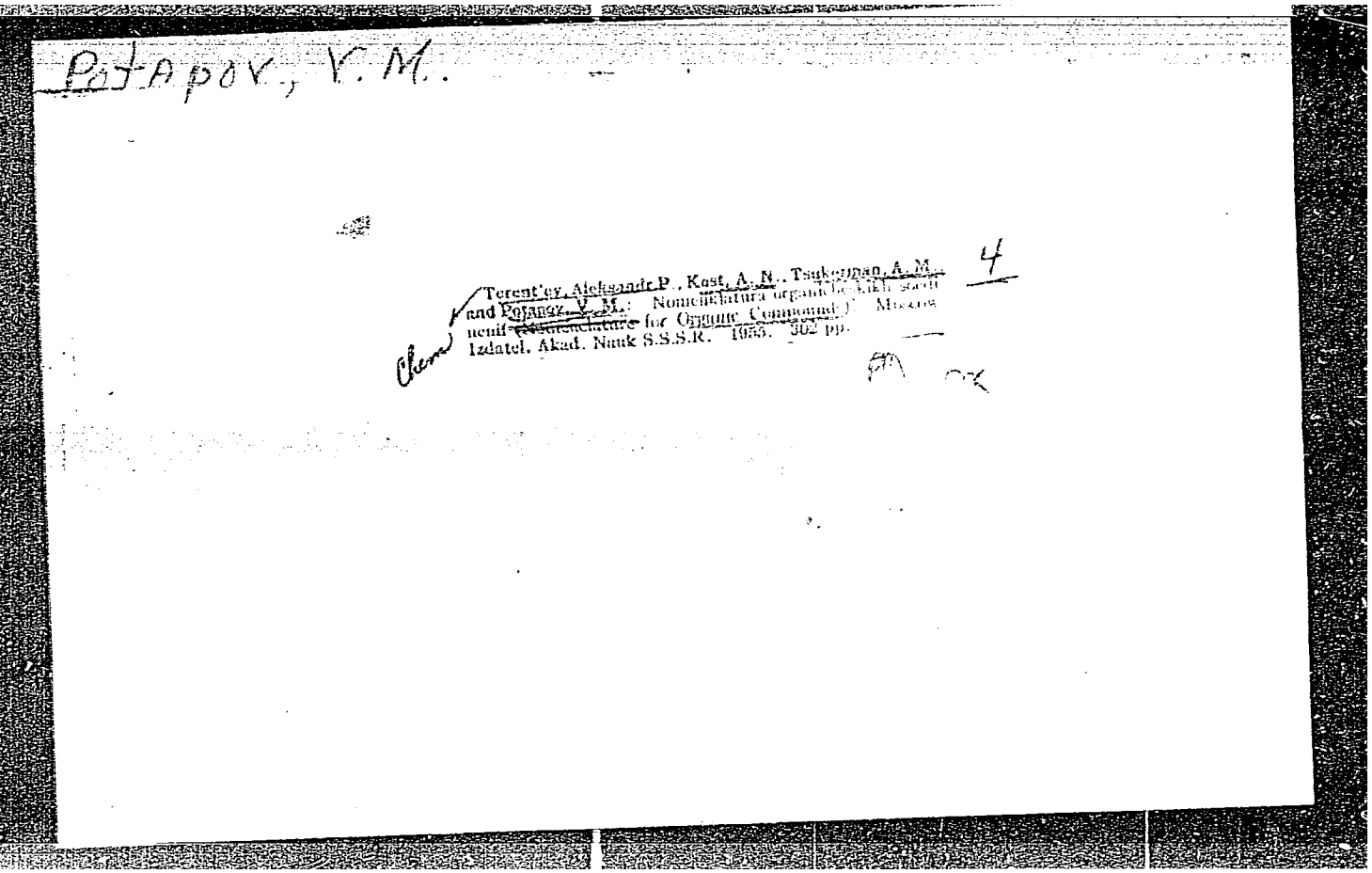
Submitted 13 Jan 1947

PA 64T38

POTAPOV, V. M.

Potapov, V. M. - "The deriv tion of bromopentene (4.2) and its utilization in organic-ma nesium synthesis," Uchen. zapiski (L'vovsk. g[illegible], un-t im.Franko), Vol. IX, 1948, p. 117-25, (In Ukrainian, resume in Russian), - Biblio: p. 124

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1948).



Rost-Apov, V. M.

Terent'ev, Aleksandr P., Kost, A. N., Tsukerman, A. M.
and Rozanov, V. M.: Nomenklatura organicheskikh soedi-
nenii (Nomenclature for Organic Compounds) Moscow
Izdatel. Akad. Nauk S.S.S.R. 1955. 302 pp.

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TERENT'YEV,A.P.; POTAPOV,V.M.; KOST,A.N.; TSUKERMAN,A.M.

Systematic nomenclature of organic compounds. Vest.Mosk. un no.6:97-134 Je'55. (MLRA 9:1)

1. Kafedra spetsial'nogo organicheskogo sinteza.
(Chemistry, Organic--Nomenclature)

POTAPOV, V.M.

USSR.

Optically-active substances in the laboratory and in nature. A. P. Terent'ev and V. M. Potapov. *Priroda* 44, No. 5, 37–44(1955).—A review of the work on optically active materials including a discussion of asymmetric synthesis.
J. Rovtar Leach

TERENT'YEV, A.P.; POTAPOV, V.M.

At the international chemical congress in Zürich. Priroda 44 no.12:42-47 D '55. (MLRA 9:1)

1.Chlen-korrespondent Akademii nauk SSSR, (for Terent'yev).
(Zürich--Chemistry--Congresses)

TERENT'YEV, A.P.; KOST, A.N.; TSUKERMAN, A.M.; POTAPOV, V.M.; SERGEYEV, P.G., professor, redaktor; STRUCHKOV, Yu.T., redaktor; MOSKVICHEVA, N.I., tekhnicheskiy redaktor.

[Nomenclature of organic compounds; survey, criticism, proposals] Nomenklatura organicheskikh soedinenii; obzor, kritika, predlozhenia. Moskva, Izd-vo Akademii nauk SSSR, 1955. 302 p. (MLRA 8:12)
(Chemistry, Organic--Nomenclature)

Potapov, VM.

Systematic nomenclature of organic compounds. A. P. Terent'ev, V. M. Potapov, A. N. Kost, and A. M. Tsuker-man. *Vestnik Moskov. Univ.* 10, No. 6, *Ser. Fiz.-Mat. i Estestven. Nauk* No. 4, 97-134(1955).—A new general system of nomenclature is proposed applicable to the naming of customary compounds consideration of geometric and optical isomers is given. John Howe Scott

4

RM

POTAPOV, V. M.

Potapov, V. M.

"Synthetic and stereochemical investigations of the alpha-phenyl ethylamine series." Moscow State U imeni M. V. Lomonosov. Chemistry Faculty. Chair of Organic Chemistry. Moscow, 1956 (Dissertation for the degree of Candidate in Chemical Science)

Knizhnaya letopis'
No. 25, 1956. Moscow

TERENT'YEV, A.P.; POTAPOV, V.M.

Sulfonation and sulfonic acids of acidophobe compounds. Part 27. Alkylsulfuric acids sas reagents for the cleavage of racemic bases. Zhur.ob.khim. 26 no.1225-1228 Ap '56. (MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet.
(Sulfuric acid) (Ethylamine)

Synthesis of [illegible] of taurine by the Leuckart reaction. A. P. Terent'ev, [illegible] and I. I. [illegible] (State Univ., Moscow). [illegible] 26, [illegible]—BzCH$_2$SO$_3$H [illegible] with [illegible] neutralized with NH$_4$OH, [illegible] and the crude NH$_4$ salt heated 8 hrs. to 16[illegible] with [illegible] HCONH$_2$ gave on cooling and stirring with [illegible] 62.4% *PhCH(NHCHO)CH$_2$SO$_3$NH$_4$*, decomp. 231° (from H$_2$O). Heated briefly with aq. H$_2$SO$_4$ it gave a [illegible] of *PhCH(NH$_2$)CH$_2$SO$_3$H*, decomp. 314° (purified by pptn. from NH$_4$OH with HCl), sparingly sol. in hot H$_2$O, giving PhCH:CHSO$_2$NH$_2$ on treatment with NaNO$_2$-HCl and PCl$_5$, then NH$_3$, thus confirming its structure. The NH$_4$ salt in the above synthesis can be replaced by the Ba salt, while HCONH$_2$ may be replaced by HCO$_2$NH$_4$ (heating in this case should be 5 hrs. at 200°, and the best yield (64%) is obtained with 2 moles formate to 1 mole sulfo deriv.; some H$_2$S is evolved during the reaction, indicating a reduction of the sulfo group, which accounts for the reduced yield). Similarly *p*-MeC$_6$H$_4$COCH$_2$SO$_3$H heated with 3 moles HCO$_2$NH$_4$ 2 hrs. to 200° (final temp.) gave 29% *p*-[illegible] decomp. [illegible]. 2,4-Me$_2$C$_6$H$_3$Ac (0.4 mole) with [illegible] SO$_3$ in [illegible] 3 hrs. at 5–15° pptd. 80% *2,4-Me$_2$C$_6$H$_3$COCH$_2$SO$_3$H*, decomp. 175–6° (from Me$_2$CO); *NH$_4$ salt*, decomp. 170–1°; *S-benzylthiuronium salt* [illegible]. The NH$_4$ salt (0.05 mole) heated with 6 g. urea and [illegible] 6 hrs., [illegible] to 150°, then [illegible] gave 4[illegible] 2,4-Me$_2$[illegible] M. [illegible]

Potapov, V.M.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26796.

Author : Terent'yev, A.P.; Potapov, V.M., Semion, I.Z.

Inst :

Title : Synthesis of Homologues of Taurine by Leukart's Reaction.

Orig Pub: Zh. obshch. khimii, 1956, 26, No. 10, 2934 - 2937.

Abstract: The acids $ArCH(NH_2)CH_2SO_3H$ (II) - aromatic homologues of taurine - were prepared using Leukart's reaction by heating NH_4 of Ba salts of $ArCOCH_2SO_3H$ (I) with $HCOONH_4$, or $HCONH_2$, or a mixture of urea and HCOOH (2 to 6 hours, 165 - 200°). 0.4 mol of acetophenone is sulfonated with dioxanesulfotrioxide (III),

Card 1/

POTAPOV, V. M.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26784.

Author : Terent'yev, A.P.; Potapov, V.M.
Inst :
Title : Sulfonation and Sulfo Acids of Acidophobe Compounds. XXVII. Alkylsulfuric Acids as Reagents for Splitting Racemic Bases.

Orig Pub: Zh. obshch. khimii, 1956, 26, No. 4, 1225 - 1228.

Abstract: A new type of acid asymmetric reagents - acid sulfates of optically active alcohols - is proposed for splitting amines into optic antipodes. The salts with (-)-bornylsulfate (I) and (-)-menthylsulfate (II) are used for splitting α-penylethylamine (III), α-(m-xylyl)-ethylamine (IV) and α-(n-xylyl)-ethylamine (V).

Card 1/4

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26784.

20.6 g of SO_3 in 70 ml of dichloroethane was added to the solution of 23 ml of dioxane in 130 ml of dichloroethane at 0°, after which 40 g of (-)-borneol was added to it. After the neutralization of the aqueous layer with $BaCO_3$ 79% of Ba-salt of I, dissociation point 103 - 104°, $[\alpha]^{20}D$ - 18.0° (c = 2,7; water), was produced by concentration by evaporation. Ba-salt of II, dissociation point 111 - 112°, $[\alpha]^{18}D$ - 55.1° (with 1,5; water), was produced of (-)-menthol in a similar way. 2.7 g of the salt I.(+)-III, melting point 163°, $[\alpha]^{18}D$ - 12.4° (with 1,1; water), $[\alpha]^{18}D$ - 14.2° (c = 1,9; CH_3OH), was produced of 5.1 g of III sulfate and 9.3 g of Ba salt of I (separation of $BaSO_4$, concentration of filtrate by evaporation down to 200 ml,

Card 2/4

ТЕРЕНТ'ЕВ, А.П.; ПОТАПОВ, В.М.; SEMION, I.Z.

Synthesis of taurine homologs by the Leuckart reaction. Zhur. ob. khim. 26 no.10:2934-2937 O '56. (MIRA 11:3)

1. Moskovskiy Gosudarstvennyy universitet.
(Taurine) (Leuckart reaction)

POTAPOV V.M.

TOPCHIYEVA, K.V.; PESHKOVA, V.M.; SHAKHOVA, Z.F.; ALIMARIN, I.P.; NOVOSELOVA, A.V.; SPITSYN, V.I.; LUTSENKO, I.F.; GERASIMOV, Ya.I.; NESMEYANOV, A.N.; TKRENT'YEV, A.P.; POTAPOV, V.M.; GIBALO, I.M.

E.S. Przheval'skii; obituary. Vest. Mosk. un. Ser. mat. mekh., astron., fiz., khim. 11 no.2:205-207 '56. (MIRA 10:12)
(Przheval'skii, Evgenii Stepanovich, 1879-1956)

Potapov V.M.

TERENT'YEV, A.P.; POTAPOV, V.M. (Moskva)

. Cleavage of racemates. Usp.khim. 26 no.10:1152-1179 O '57.
(MIRA 10:10)

(Tartaric acid)

POTAPOV, Viktor M., and TSUNTSVA, Aleksandr P. Chemistry Inst. Moscow State Univ. im Lomonosvo.

"Actual Problems of Nomenclature in Organic Chemistry,"

Chemische Technik, No. 11, 1957.

POTAPOV, V. M.

AUTHORS: Terent'yev, A. P., and Potapov, V. M. 62-1-21/21

TITLE: Session of the International Commission on the Nomenclature of Organic Compounds (Sessiya Mezhdunarodnoy Komissii po nomenklature organicheskikh soyedineniy)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1957, No. 1, pp. 126-127 (U.S.S.R.)

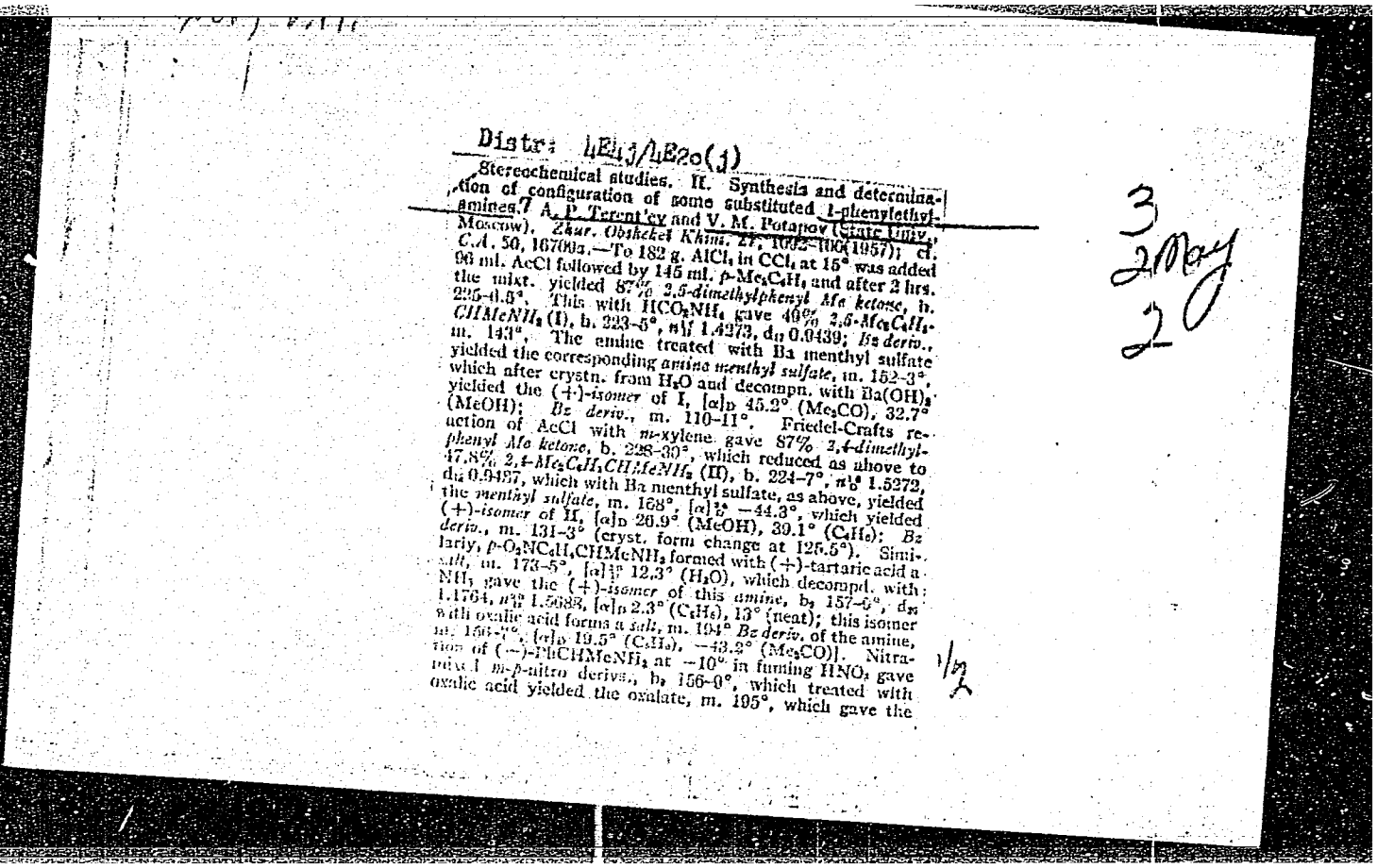
ABSTRACT: Briefs are presented from the Session of the International Commission on the Nomenclature of Organic Compounds, held in Vedbeke, suburb of Copenhagen, Denmark, during August 27 through September 1, 1956. The names of members of the Commission and their nationalities are listed. Some resolutions adopted at the Session are described, together with a notice that the next session will be held in July, 1957 in Paris, France.

Card 1/2

TSUKERVAN, A.P.; POTAPOV, V.M.

Stereochemical investigations. Part 2: Synthesis and determination of the configuration of some substituted d-phenylethylamines. Zhur. ob. Khim. 27 no.4:1090-1091 Ap '57. (MLRA 10:8)

1. Moskovskiy gosudarstvennyy universitet.
(Benzylamine)



Distr: 4E4J/4E2o(1)

Stereochemical studies. II. Synthesis and determination of configuration of some substituted 1-phenylethylamines. A. P. Terent'ev and V. M. Potapov (State Univ., Moscow). *Zhur. Obshchei Khim.* 27, 1082–106(1957); cf. *C.A.* 50, 16709a.—To 182 g. $AlCl_3$ in CCl_4 at 15° was added 96 ml. AcCl followed by 145 ml. *p*-$Me_2C_6H_4$ and after 2 hrs. the mixt. yielded 87% *2,5-dimethylphenyl Me ketone*, b. 225–6.5°. This with HCO_2NH_4 gave 46% *2,5-*$Me_2C_6H_3CHMeNH_2$ (I), b. 223–5°, n_D^{15} 1.4273, d_{15} 0.9439; *Bz deriv.*, m. 143°. The amine treated with Ba menthyl sulfate yielded the corresponding *amine menthyl sulfate*, m. 152–3°, which after crystn. from H_2O and decompn. with $Ba(OH)_2$ yielded the (+)-*isomer* of I, $[\alpha]_D$ 45.2° (Me_2CO), 32.7° (MeOH); *Bz deriv.*, m. 110–11°. Friedel-Crafts reaction of AcCl with *m*-xylene gave 87% *2,4-dimethylphenyl Me ketone*, b. 228–30°, which reduced as above to 47.8% *2,4-*$Me_2C_6H_3CHMeNH_2$ (II), b. 224–7°, n_D^{15} 1.5272, d_{15} 0.9487, which with Ba menthyl sulfate, as above, yielded the *menthyl sulfate*, m. 168°, $[\alpha]_D^{25}$ −44.3°, which yielded (+)-*isomer* of II, $[\alpha]_D$ 26.9° (MeOH), 39.1° (C_6H_6); *Bz deriv.*, m. 131–3° (cryst. form change at 126.5°). Similarly, *p*-$O_2NC_6H_4CHMeNH_2$ formed with (+)-tartaric acid a *salt*, m. 173–5°, $[\alpha]_D^{25}$ 12.3° (H_2O), which decompd. with NH_3 gave the (+)-*isomer* of this *amine*, b_3 157–9°, d_{25} 1.1764, n_D^{25} 1.5688, $[\alpha]_D$ 2.3° (C_6H_6), 13° (neat); this isomer with oxalic acid forms a *salt*, m. 194° *Bz deriv.* of the amine, m. 156–7°, $[\alpha]_D$ 19.5° (C_6H_6). −43.2° (Me_2CO)]. Nitration of (−)-$PhCHMeNH_2$ at −10° in fuming HNO_3 gave principal *m-p*-nitro deriv., b_3 156–9°, which treated with oxalic acid yielded the oxalate, m. 195°, which gave the

3
2 May
20

TERENT'EV, A.P.; POTAPOV, V.M.

(−)-somer, identical with the above, but incompletely pure optically (75%). Thus, the 3 (+)-isomers of amines described have the same abs. configuration; this is the configuration of (+)-PhCHMeNH$_2$. Since the latter is structurally connected with (−)-alanine, the relative configuration of these amines is established. Notation of configurations is discussed.

G. M. Kosolapoff

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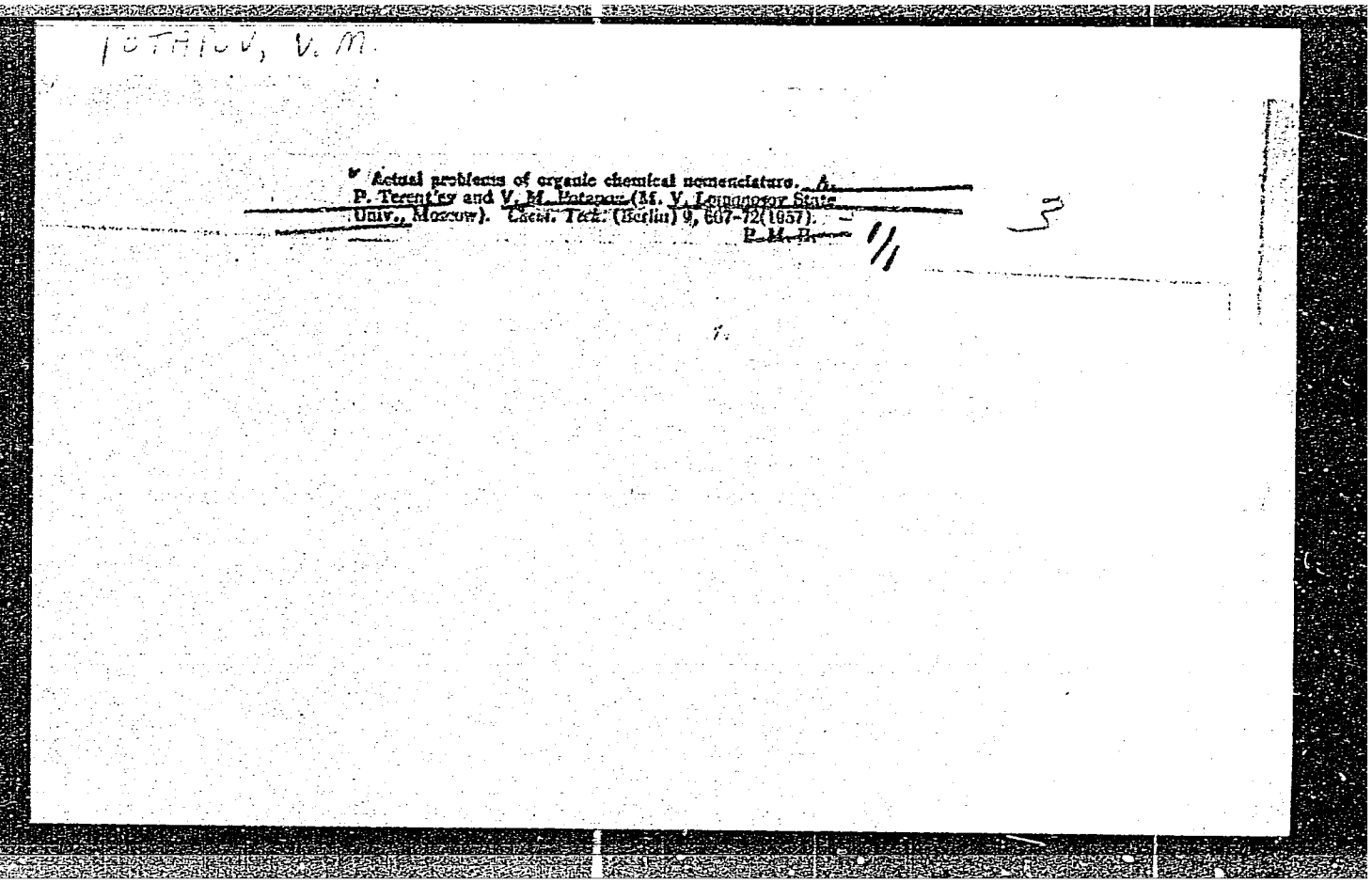
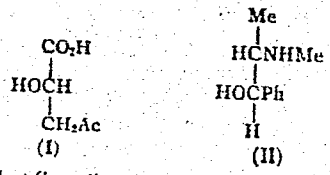


POTAPOV, V. M.

Actual problems of organic chemical nomenclature. A. P. Terent'ev and V. M. Potapov (M. V. Lomonosov State Univ., Moscow). Chem. Tech. (Berlin) 9, 667-72(1957). P. M. P.

The nomenclature problem in stereochemistry. A. P. Terentev and V. M. Potapov (Moscow State Univ.). *Tetrahedron* 1, 119-28(1957)(in German).—The system proposed for the designation of the steric structure of org. mols. provides a nomenclature for a great variety of stereoisomeric compds. The numbered straight chain of a compd. is taken as an axis and the asym. n-C atom is regarded as attached to the 4 different groups or atoms a, b, $(n-1)$C, $(n+1)$C. With $(n-1)$C as apex and looking in the direction of $(n+1)$C, if the group of the highest order (a) is on the left (or right) of the observer, the asym. atom has the configuration ρ (or σ). Similarly, looking along the axis of a true Fischer projection in the direction of the increasing numbering, the group of the highest order is on the right for configuration σ. The designation ρ (or σ) is written with the position no. of the group of the highest order; e.g., I is designated σ 2-pentanol-4-one-1-carboxylic acid. Conformation isomers of $(BrCH_2)_2$ are differentiated



by the angle ϕ (in radians) formed by rotation of the groups of the highest order around the C—C axis (where ϕ, ϕ^1, ϕ^2, ϕ^3, ϕ^4, ϕ^5 = 0, 1/3, 2/3, 1, 1 1/3, and 1 2/3 radians, resp.). In ephedrine (II), the angle ϕ is measured between the 1-*C*-Ph and 2-*C*-Me groups and, taking into account the configuration of the 2 asym. atoms, II is designated 1 ϕ^2-phenyl-σ 2-methylamino-σ 1-propanol. In the steroid nomenclature α, β can be substituted by ρ, σ. The value of the nomenclature in recording and the filing of 3-dimensional formulas is stressed.

C. R. Addinall

POTAPOV, V.M.; TERENT'YEV, A.P.

Role played by rotation isomerism in optical activity. Vest. Mosk. un. Ser. mat., mekh., astron., fiz. khim., 12 no.5:163-170 '57.
(MIRA 11:9)

1.Kafedra organicheskoy khimii Moskovskogo gosudarstvennogo universiteta.
(Isomerism)

POTAPOV, V.M.; TERENT'YEV, A.P.

Stereochemical investigations. Part 4: Schiff bases from optically active α-benzylethylamine. Zhur.ob.khim. 28 no.12:3323-3328 D '58. (MIRA 12:2)

1. Moskovskiy gosudarstvennyy universitet.
(Ethylamine) (Schiff bases)

AUTHORS: Terent'yev, A. P., Potapov, V. M. 79-28-5-6/69

TITLE: Stereochemical Investigations (Stereokhimicheskiye issledovaniya).
III. Schiff Bases From Optically Active α-Phenylethylamine (III. Osnovaniya Shiffa iz opticheski aktivnogo α-feniletilamina)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1161-1166 (USSR)

ABSTRACT: Based on a few published optically active Schiff bases, e. g., such bases from the isomers of menthyl- and phenylamine (References 4,5), the authors obtained Schiff bases from the derivatives of optically active α-phenylethylamine. All details are shown in the table. Concurrently, a report by Nerdel (Reference 6) was published, where some such bases from α-phenylethylamine were described, some of which had already been synthetized by the authors (II, V, VII and XI). Nerdel carried out the calculations of the optical activity on benzene, alcohol, chloroform and dioxane, while the authors did so in ben-

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zene, methanol, acetone and dichlorethane. Thus data are only coinciding for the benzene solutions, where this is rather exactly the case; in the rest of the solutions they well duplicate one another. When considering the constants mentioned in the table, the great difference between the data found and the calculated molecular refraction was, to be expected, because according to Auvers, the exaltation of the molecular refraction for benzylamines can rise up to four units. The data in the table on the optical activity are first of all of interest for the solving of the problem when considering the influence of the character of the substituent in the aromatic nucleus on the extent of the optical rotation in the given type. The authors synthetized Schiff bases from optically active α-phenylethylamine and benzaldehyde, from 13 substituted benzaldehydes and other aldehydes, as well as from furfurol. The results obtained were used to consider the problem of the possible influence of the rotational isomers on the extent of the rotation. There are 2 tables and 13 references, 3 of which are Soviet.

Stereochemical Investigations. 79-28-5-6/69
III. Schiff Bases From Optically Active α-Phenylethylamine

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: April 8, 1957

Card 3/3

AUTHORS: Potapov, V. M., Terent'yev, A. ... SOV/79-28-12-37/41

TITLE: Stereochemical Investigations (Stereokhimicheskiye issledovaniya)IV. Schiff's Bases From Optically Active α-Benzyl-Ethyl Amine (IV. Osnovaniya Shiffa iz opticheski aktivnogo α-benzil-etilamina)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 12, pp 3323 - 3328 (USSR)

ABSTRACT: In their previous paper (Ref 1) the authors described several Schiff's bases of the first series from optically active α-phenyl-ethyl amine (I). The specific behavior of these compounds with respect to optical rotation caused the authors to synthesize and investigate the optical activity of the second series of Schiff's bases. They started from the optically active α-benzyl-ethyl amine (II), which differs from (I) in the presence of the CH_2 group between the benzene nucleus and the asymmetric center. The synthesis of racemate (II) was carried out by the reducing amination of phenyl acetone according to Leukart (Leykart). The synthesis of this initial product requires much time. The catalytic condensation of phenyl acetic acid with ordinary acetic acid is the most

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convenient. The cleavage of (II) into the optical antipodes can be obtained by the action of d-tarturic acid in alcohol solution (Refs 2,4). In the place of this acid also the earlier used acid sulfate of menthol can be applied, thus separating (-) (II), whereas in the cleavage with d-tartaric acid the diastereoisomer is separated which contains (+)(II). In this way the two antipodes can be obtained with either reagent. The condensation of (II) with a substituted benzaldehyde takes place easily without solvent, or in benzene already in the water bath. The constants of the purified products synthesized are given in the experimental part, the data on the optical activity in table 1. The optical properties of this series of Schiff's bases differ from those of the series investigated earlier. The experimental material collected on the optical activity of these bases is not sufficient to draw comprehensive conclusions from their detected characteristic features. The optical activity of these bases was, besides in benzene, determined also in methanol, acetone, dichloro ethane, and heptene.

Stereochemical Investigations. IV. Schiff's Bases From Optically Active α-Benzyl-Ethyl Amine SOV/79-28-12-37/41

There are 1 table and 11 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 4, 1957

Card 3/3

5 (3)
AUTHORS: Potapov, V. M., Terent'yev, A. P., Dem'yanovich, V. M.

SOV/79-29-3-42/61

TITLE: Stereochemical Investigations (Stereokhimicheskiye issledovaniya). V. The Optically Active β-Phenyl Taurine (V. Opticheski aktivnyy β-feniltaurin)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 953-954 (USSR)

ABSTRACT: Not long ago the authors worked out a convenient method of synthesizing taurine homologues (Ref 1) from ketones by sulfurization with dioxane sulfo trioxide and the subsequent reduction-amination according to Leuckart. The taurine homologues of the type $Ar\text{-}CHNH_2\text{-}CH_2SO_3H$ resulting therefrom have an asymmetric carbon atom. It was of interest to try to obtain these homologues in the optically active form as well. The experiment made in this direction showed that β-phenyl taurine can indeed be obtained in the optically active form. For this purpose, the corresponding barium salt was obtained from the ammonium salt of N-formyl-β-phenyl taurine (I), which led to the diastereomer I(-)II-salts on the reaction with the sulfate (-) of α-phenylethylamine (II). In their

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Stereochemical Investigations. V. The Optically Active β-Phenyl Taurine SOV/79-29-3-42/61

recrystallization from water, one of their diastereomers was separated, which yielded the optically active β-phenyl taurine after decomposition (Scheme). It is to be noted that this active taurine differs considerably from the racemic type with respect to the crystal shape and its properties. The racemate has a different crystal shape from the optically active taurine and melts at 347-349° against 317-320°. Also their solubility in water differs. The decomposition of β-phenyl taurine into the optical antipodes was realized through the diastereomer salt of its formyl derivative with (-) α-phenyl ethyl amine. There are 1 table and 2 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: January 23, 1958

Card 2/2

5 (3)
AUTHORS: Terent'yev, A. P., Potapov, V. M., Dem'yanovich, V. M.

SOV/79-29-3-41/61

TITLE: New Aromatic Homologues of Taurine (Novyye aromaticheskiye gomologi taurina)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 949-952 (USSR)

ABSTRACT: The synthesis of the taurine homologues (Ref 1) which the authors had already earlier worked out by the reduction-amination according to Leuckart of the β-keto sulfo acids (Ref 2) which are now easily accessible, was applied also in the work under review for the synthesis of new aromatic taurine homologues of the substituted β-phenyl taurines. The initial ketones of the aliphatic-aromatic series obtained according to Friedel-Crafts (Ref 3) (by condensation of the corresponding benzene compounds with acetyl chloride) were transformed by dioxane sulfotrioxide into the β-keto sulfo acids. Table 1 shows the constants of their ammonium and S-benzyl thiouronium salts. The ammonium salts of β-ketone sulfo acids were introduced into the reduction-amination reaction. As reagents were used formamide (method A), a mixture of 85 % formic acid and ammonium carbonate (method B), as well as a mixture of urea

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and anhydrous formic acid (method C). On the synthesis of β-phenyl taurine from the ammonium salt of ω-acetophenone sulfo acid, the method B gave the highest yields. To avoid a hydrolysis of the sulfo group at the beginning of the reaction, the water was expelled in the Wuertz flask at 185° as long as the medium was still acid by excess of formic acid. After cooling, ammonium salt of β-keto sulfo acid was added to the mixture obtained, consisting of formamide and ammonium formiate, and the whole was heated during 6 hours up to 180-185°. The reaction began at 120-125°. The hydrogen sulfide development showed that the sulfo group participated in the reaction. A control proved that the sulfo group of the forming amino sulfo acid is not affected under the reaction conditions. For some derivatives of β-phenyl taurine, quantitative yields were obtained on the reaction of the corresponding β-ketone sulfo acids with the mixture of urea in anhydrous formic acid (method C). The constants of the taurines synthesized may be seen in table 2. There are 2 tables and 3 references, 2 of which are Soviet.

New Aromatic Homologues of Taurine SOV/79-29-3-41/61

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: February 9, 1958

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SOV/79-29-9-76/76

5(3)

AUTHORS: Potapov, V. M., Terent'yev, A. P., Sarybayeva, K. I.

TITLE: Stereochemical Investigations. VI. Schiff's Bases From Optically Active α-(p-Xylyl)-ethyl Amine

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 3139 - 3141 (USSR)

ABSTRACT: The authors continue their previous investigations (Refs 1,2) and synthesize a number of Schiff's bases from α-(p-xylyl)-ethyl amine. Regarding the optical activity, there are some differences in both series in spite of great similarity of these bases with those of α-phenyl-ethyl amine. It is remarkable that the former bases, depending upon the solvent, change the value of rotation considerably more than the formerly described bases of α-phenyl-ethyl amine. With the exception of two Schiff's bases, the values of molecular rotation of α-(p-xylyl)-ethyl amine derivatives are in most cases noticeably lower than those of the α-phenyl-ethyl amine derivatives. Otherwise Schiff's bases of both series are very similar to one another, which is shown especially qualitatively by equal intensification of the optical activity depending on the nature of the

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Stereochemical Investigations. VI. Schiff's Bases From Optically Active α-(p-Xylyl)-ethyl Amine SOV/79-29-9-70/76

substituent in the aldehyde ring. α-(p-Xylyl)-ethyl amine in its optically active form was obtained from its racemate by way of the diastereoisomeric salts with methyl sulphuric acid (Ref 3). A much better separation was achieved with greater amounts of diastereoisomeric salts. The data on the optically active Schiff's bases obtained are listed in the table. The determinations were made at room temperature. If the initial amine was not quite pure optically, the Schiff's base was purified by distillation only, since it had to be feared that the optical degree of purity could change in recrystallization. There are 1 table and 3 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: August 4, 1958

Card 2/2

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77916
SOV/79-30-2-67/78

AUTHORS: Potapov, V. M., Terent'yev, A. P.

TITLE: Stereochemical Investigations. VII. Schiff Bases From Optically Active α-Phenylpropylamine

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 2, pp 666-670 (USSR)

ABSTRACT: The authors reported previously (this Journal, 1958, Vol 28, p 1161; ibid., Vol 28, p 3321; ibid., 1959, Vol 29, p 3139) the optical investigation of Schiff bases obtained from optically active amines (such as α-phenylethylamine (I), and others) with CH_3 as one of the substituents at the center of asymmetry. Amines with other aliphatic radicals were investigated in the present study. α-Phenylpropylamine (II) was obtained by Leuckart reductive amination of propiophenone. The resolution of (II) was made with (-) -malic acid in ethanol, and the Schiff bases were obtained from the optically active (II) by heating it with the corresponding aromatic aldehydes in benzene (preparations 1-8) or methanol (preparations 9-11). The molecular rotation $[M]_D$ of the (II)-

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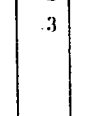
Stereochemical Investigations. VII. Schiff Bases From Optically Active α-Phenylpropylamine

77916
SOV/79-30-2-67/78

-derived Schiff bases (recalculated for optically pure (+) - α-phenylpropylamine) and of (I)-derived bases are given in Table 1.

Table 1. Molecular rotations of Schiff bases from (+)- α-phenylpropylamine $C_6H_5-CH(C_2H_5)-N=CH-X$.

Key to Table 1. (A) Preparation Nr; (B) M_D in benzene; (C) M_D without solvent; (D) M_D for derivatives of (I) in benzene.

A	X	B	C	D
1	o-$NO_2C_6H_4$	+382°	+315°	+227°
2	o-$OCH_3C_6H_4$	+145	+151	+ 85
3		−123	−176	−132
4	C_6H_5	−165	−165	−168
5	p-$CH_3C_6H_4$	−171	—	−234
6	p-ClC_6H_4	−244	—	−258
7	p-$OCH_3C_6H_4$	−259	—	−248
8	p-$NO_2C_6H_4$	−271	−219	−271
9	p-OHC_6H_4	—	—	—
10	o-OHC_6H_4	−399	−206	−402
11	p-$N(CH_3)_2C_6H_4$	−468	—	−460

Card 2/3

POTAPOV, V.M.; TROFIMOV, F.A.; TERENT'YEV, A.P.

Spectropoxlarimetric study of a ketimide-enamine tautomeric system.
Dokl. AN SSSR 134 no.3:609-611 S '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Terent'yev).
(Tautomerism)

S/020/60/132/03/38/066
B011/B008

5.3100

AUTHORS: Potapov, V. M., Terent'yev, A. P., Corresponding Member AS USSR

TITLE: On the Tautomerism of Amides

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3, pp. 626-627

TEXT: When studying the rotatory dispersion of some derivatives of the optically active α-phenyl-ethyl amine in the ultraviolet spectral range, the authors obtained new data concerning the tautomerism of amides. For this purpose they used a simple variant of the photo-electric spectro-polarimeter developed in their laboratory. It is well known that a tautomerism $R-CONH_2 \rightleftharpoons C(OH)=NH$ occurs in the case of the amides of the carboxylic acids. A uniform opinion about the structure of the amides is lacking so far, in spite of numerous investigations by other scientists. In no case actually 2 amide forms were produced. The authors stated that the rotatory dispersion curves are only slightly varied at the transition from benzene to methanolic solutions for free

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α-phenyl-ethyl amine (I), N-benzyl-α-phenyl-ethyl amine (II), as well as benzal-α-phenyl-ethyl amine (III). For N-benzoyl-α-phenyl-ethyl amine (IV), on the other hand, the digit sign of the rotation as well as the course of the dispersion curve are directly opposed to each other in benzene (Fig. 1 dashed lines) and in methanol (solid lines). In benzene, IV shows a similarity with II, in methanol, however, with III. The lactam form is apparently predominant in benzene, whereas the lactim form is predominant in methanol (compare data by Yu. N. Sheynker, Ref. 3). In agreement with the above interpretation, such an effect of the solvent is absent at the benzoyl-derivative of the amine II (Fig. 1,V), since it lacks the H-atom on the nitrogen, which would be capable of a tautomeric transition. For the above mentioned reasons, the authors tested again the differences of the melting points of the benzoyl-α-phenyl-ethyl amine from publications: 122°C from alcohol and 125°C from ligroin (Refs. 4,5). It appeared that the preparation recrystallized from heptane (melting point 128-129°C) is precipitated as a form with the melting point of 123°C after heating in diluted methanol at a cooling of the solution. If the melting is examined under the microscope, it can be seen that the substance molten at 123°C

7.3010

AUTHORS: Potapov, V. M., Terent'yev, A. P., Demyanovich, V. M.

TITLE: Synthesis of Aliphatic Taurines by the Leuckart Reaction

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 3, pp 1043-1047 (USSR)

ABSTRACT: A series of aliphatic β-ketosulfonic acids (see Table 1) was prepared by the action of dioxane-sulfur trioxide on aliphatic ketones and converted into taurine homologs (see Table 2) by reductive amination according to Leuckart:

$$R{-}CO{-}CH_2SO_3H + 2HCONH_2 \longrightarrow R{-}\underset{\displaystyle NH{-}CHO}{\underset{|}{CH}}{-}CH_2SO_3H + NH_3 + CO_2$$

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Synthesis of Aliphatic Taurines by the Lenkart Reaction

SOV/79-30-3-

Table 1. Key: Alipnatic β -ketosulfonic acids.
(a) Ketosulfonic acid (b) Yield (%).

a	b
$CH_3COCH_2SO_3H$	84.0
$CH_3COCH(CH_3)SO_3H$	72.5
$CH_3COCH(iso\text{-}C_3H_7)SO_3H$	87.2
$CH_3COCH(C_5H_{11})SO_3H$	74.5
$C_2H_5COCH(CH_3)SO_3H$	67.4
$C_3H_7COCH(C_2H_5)SO_3H$	80.0
$iso\text{-}C_3H_7COC(CH_3)_2SO_3H$	78.6

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Synthesis of Aliphatic Taurines by the Bucherer Reaction

SOV/79-30-3-62/69

Table 2. Key: Aliphatic homologs of N-formyltaurine. (a) Taurine; (b) Yield (%), (c) S-benzylthiuromium salt; (d) Mp; (e) Formula (f) N content (%); (g) Found; (h) Calculated.

a	b	c		f	
		d	e	g	h
$CH_3CHCH_2SO_3H$ NHCHO	--	194—195°	$C_{12}H_{16}O_4N_2S_2$	12.62, 12.83	12.63
$CH_3CHCH(CH_3)SO_3H$ NHCHO	38.3	152—152.5	$C_{13}H_{21}O_4N_3S_2$	11.81, 11.93	12.09
$CH_3CHCH(iso\text{-}C_3H_7)SO_3H$ NHCHO	24.0	216—217	$C_{15}H_{27}O_4N_3S_2$	11.18, 11.35	11.19
$CH_3CHCH(C_5H_{11})SO_3H$ NHCHO	20.0	179.5—180	$C_{17}H_{29}O_4N_3S_2$	10.38, 10.53	10.41
$C_2H_5CHCH(CH_3)SO_3H$ NHCHO	16.0	178.5—179	$C_{14}H_{23}O_4N_3S_2$	11.74, 11.65	11.62
$C_3H_7CHCH(C_2H_5)SO_3H$ NHCHO	—	118—119	$C_{16}H_{27}O_4N_3S_2$	10.48, 10.70	10.78
$iso\text{-}C_3H_7CHC(CH_3)_2SO_3H$ NHCHO	42	182—183	$C_{16}H_{27}O_4N_3S_2$	11.64, 11.50	10.78

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The process of reductive amination was studied by the analytical method; i.e., by determination of the CO_2, SO_4^{--}, and H_2S formed. It was shown that on sulfonation of ketones of type CH_3-CO-CH_2-R the sulfo group enters at the methylene group. There are 3 tables; and 6 references, 1 U.S., 1 U.K., 1 French, 3 Soviet. The 2 U.S. and U.K. references are: S. Zuffanti, J. Am. Chem. Soc., 62, 1044 (1940); J. Catch, D. Elliot, D. Hey, E. Jones, J. Chem. Soc., 272 (1948).

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: January 5, 1959

POTAPOV, V.M.; TERENT'YEV, A.P.

Stereochemical studies. Part 8: Photoelectric spectropolarimeter and the rotatory dispersion of certain amines in the visible and ultraviolet. Zhur. ob. khim. 31 no.3:1003-1010 Mr '61. (MIRA 14:3)

1. Moskovskiy gosudarstvennyy universitet.
(Polariscope) (Amines--Optical properties)

POTAPOV, V.M.; TERENT'YEV, A.P.

Stereochemical studies. Part 9: Spectropolarimetric detection of the tautomerism of amides. Zhur.ob.khim. 31 no.5:1720-1729 My '61.

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Amides) (Tautomerism)

POTAPOV, V.M.; DEM'YANOVICH, V.M.; TERENT'YEV, A.P.

Stereochemical studies. Part 11. Amides of optically active α-phenylethylamine with substituted benzoic acids. Zhur.ob.khim. 31 no.9:3046-3050 S '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Ethylamine) (Amides) (Stereochemistry)

POTAPOV, V.M.; TERENT'YEV, A.P.; SPIVAK, S.P.

Stereochemical studies. Part 10: Schiff bases from optically active 2-aminobutane. Zhur.ob.khim. 31 no.7:2415-2419 Jl '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Butane) (Schiff bases)

POTAPOV, V.M.; GORYAYEV, M.I., akademik; TOLSTIKOV, G.A.; TERENT'YEV, A.P.

Rotatory dispersion of cedrane series compounds. Dokl. AN SSSR 140 no.6:1341-1344 O '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. 2. AN Kazakhskoy SSR (for Goryayev). 3. Chlen-korrespondent AN SSSR (for Terent'yev).

(Cedrane)

POTAPOV, V.M.; TROFIMOV, F.A.; TERENT'YEV, A.P.

Stereochemistry. Part 12: Tautomerism of the product of condensation of (-) α-phenylethylamine with acetoacetic ester. Zhur.ob.khim. 31 no.10:3344-3353 O '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Ethylamine) (Acetoacetic acid) (Tautomerism)

POTAPOV, V.M.; DEM'YANOVICH, V.M.; LAZUTINA, L.I.; TERENT'YEV, A.P.

Stereochemical studies. Part 13: Rotatory dispersion of the derivatives of α-/1--tolylethylamine and 2-aminobutane. Zhur.-ob.khim. 32 no.4:1187-1191 Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Amines) (Molecular rotation)

POTAPOV, V.M., brigadir puti (st. Bolotnaya, Zapadno-Sibirskoy dorogi)

An excellent track is our contribution to the common cause. Put' i put.khoz. 6 no.5:31 '62. (MIRA 15:4)
(Railroads--Maintenance and repair)

POTAPOV, V. M.

Moscow State University imeni M. V. Lomonosov. "Spectral-polarimetric analysis" Lecture Session A

Report to be submitted for the General Meeting on Modern Methods of Analytical Chemistry. Merseburg, East Germany, 24-25 Oct '63

POTAPOV, V.M.; TROFIMOV, F.A.; TERENT'YEV, A.P.

Stereochemical investigations. Part 14: Optically active aryl-β-aminovinyl ketones and their tautomerism. Zhur.ob.khim. 33 no.3:853-859 Mr '63. (MIRA 16:3)
(Ketones—Optical properties)
(Tautomerism)

POTAPOV, V.M.; TERENT'YEV, A.P.; AVAKYAN, V.G.

Spectropolarimetric analysis. Report No. 1: Quantitative determination of benzaldehyde. Zhur. anal. khim. 18 no.1: 116-120 Ja '63. (MIRA 16:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Benzaldehyde) (Spectrum analysis)

POTAPOV, V.M.; MOSKVA, T.I.: TEMKIN, [illegible]

Spectropolarimetric analysis. Report No. 1. Qualitative and quantitative determination of furfurole and salicylaldehyde. Zhur. anal. khim. 17 no.2:275-277 F '62.

(MIRA 17:10)

POTAPOV, V.M.; DEM'YANOVICH, V.M.; TERENT'YEV, A.P.

Stereochemical studies. Part 15: Spectropolarimetric study of α-benzylethylamine and its derivatives. Zhur.ob.khim. 33 no.7:2372-2376 Jl '63. (MIRA 16:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Ethylamine--Optical properties) (Spectrometry) (Stereochemistry)

POTAPOV, V.M.; MOISEYEVA, G.P.; TERENT'YEV, A.P.

Optically active reagents for the carbonyl group. Vest.Mosk. un. Ser. 2: Khim. 18 no.4:28-29 Jl-Ag '63. (MIRA 16:9)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Carbonyl group) (Spectropolarimetry)

POTAPOV, V.M.; DEM'YANOVICH, V.M.

Spectropolarimetric study of certain amides and xanthates in connection with L.A.Chugov's works. Vest.Mosk. un. Ser.2:24-27 Jl-Ag '63. (MIRA 16:9)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Amides) (Xanthic acids) (Spectropolarimetry)

POTAPOV, V.M.

Spectropolarimetry, a new method of investigation in organic chemistry.
Vest.Mosk. un. Ser.2: Khim 18 no.4:3-23 Jl-Ag '63.(MIRA 16:9)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.
(Spectropolarimetry)

POTAPOV, V.M.; TERENT'YEV, A.P.; PREOBRAZHENSKAYA, M.N.; SUVOROV, N.N.

Sterochemical studies. Part 16: Optically active β-(3-indolyl) isopropylamine. Zhur. ob. khim. 33 no.8:2702-2705 Ag '63. (MIRA 16:11)

POTAPOV, V.M.; LAZUTINA, L.I.; TERENT'YEV, A.P.

Spectropolarimetric analysis. Report No.3: Determination of isomeric nitrobenzaldehydes in their mixtures. Zhur.anal.khim. 18 no.8: 1003-1006 Ag '63. (MIRA 16:12)

1. Moscow State University.

POTAPOV, V.M.; DEM'YANOVICH, V.M.; TERENT'YEV, A.P.

Spectropolarimetric analysis. Report No.4: Analysis of mixtures of ephedrine and pseudoephedrine. Zhur. anal. khim. 19 no.2:254-257 '64. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

POTAPOV, V.M.

Spectropolarimetry. Priroda 53 no.4:64-71 '64. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

POTAPOV, V.M.; TERENT'YEV, A.P.

Stereochemistry. Part 17: Molecular rotation dispersion of 1,2-diphenylethanol. Zhur.ob.khim. 34 no.2:516-518 F '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

POTAPOV, V.M.; TERENT'YEV, A.P.; DANG N'Y TAY

Effect of the solvent o.. the rotatory dispersion of acylamino acids.
Dokl. AN SSSR 158 no.5:1136-1138 O '64. (MIRA 17:10)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova. 2. Chlen-korrespondent AN SSSR (for Terent'yev).

S/0190/64/006/003/0512/0515

ACCESSION NR: AP4030371

AUTHORS: Topchiyeva, I. N.; Zlobin, V. K.; Potapov, V. M.; Levina, R. Ya.; Kabanov, V. A.; Kargin, V. A.

TITLE: Synthesis of optically active polymers on the basis of propylenediamine and cyclopropanedicarboxylic acid

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 3, 1964, 512-515

TOPIC TAGS: polymer, optically active polymer, polyamide, cyclopropanedicarboxylic acid, propylene-1,2-diamine, interfacial polycondensation, dichloride of cyclopropanedicarboxylic acid, turbidimetric titration

ABSTRACT: Synthesis of an optically active polymer from racemic components where the rate of incorporation of the D or L forms into the macromolecule differed was investigated. To 0.35 gm of racemic propylenediamine (in 400 ml water containing 0.8 gm KOH, at room temperature and under energetic stirring) were added dropwise 0.75 gm of the dichloride of trans-cyclopropanedicarbonic-1,2 acid in 90 ml of chloroform. After standing 30 minutes the polyamide was separated by filtration, washed with 10% HCl and water, and purified by dissolution in 85% formic acid and

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ACCESSION NR: AP4030371

subsequent precipitation with ammonia. The synthesis of a polyamide from L-propylenediamine was conducted in a similar way. From this polyamide the cyclopropanedicarbonic acid component was recovered by hydrolysis with phosphoric acid, treatment with barium hydroxide, and passage through a column containing the cationic resin KU-2. The recovered acid was found to be optically inert, while the polyamide itself displayed an optical rotation of a sign opposite to that of the original L-propylenediamine (its optical rotation dispersion curve being normal). It was also observed that the melting point of the optically active polymer was 40 to 50 degrees higher than that of the racemic polyamide. Orig. art. has: 1 formula and 3 charts.

ASSOCIATION: Moscovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 26Mar63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: CH NO REF SOV: 002 OTHER: 007

Card 2/2

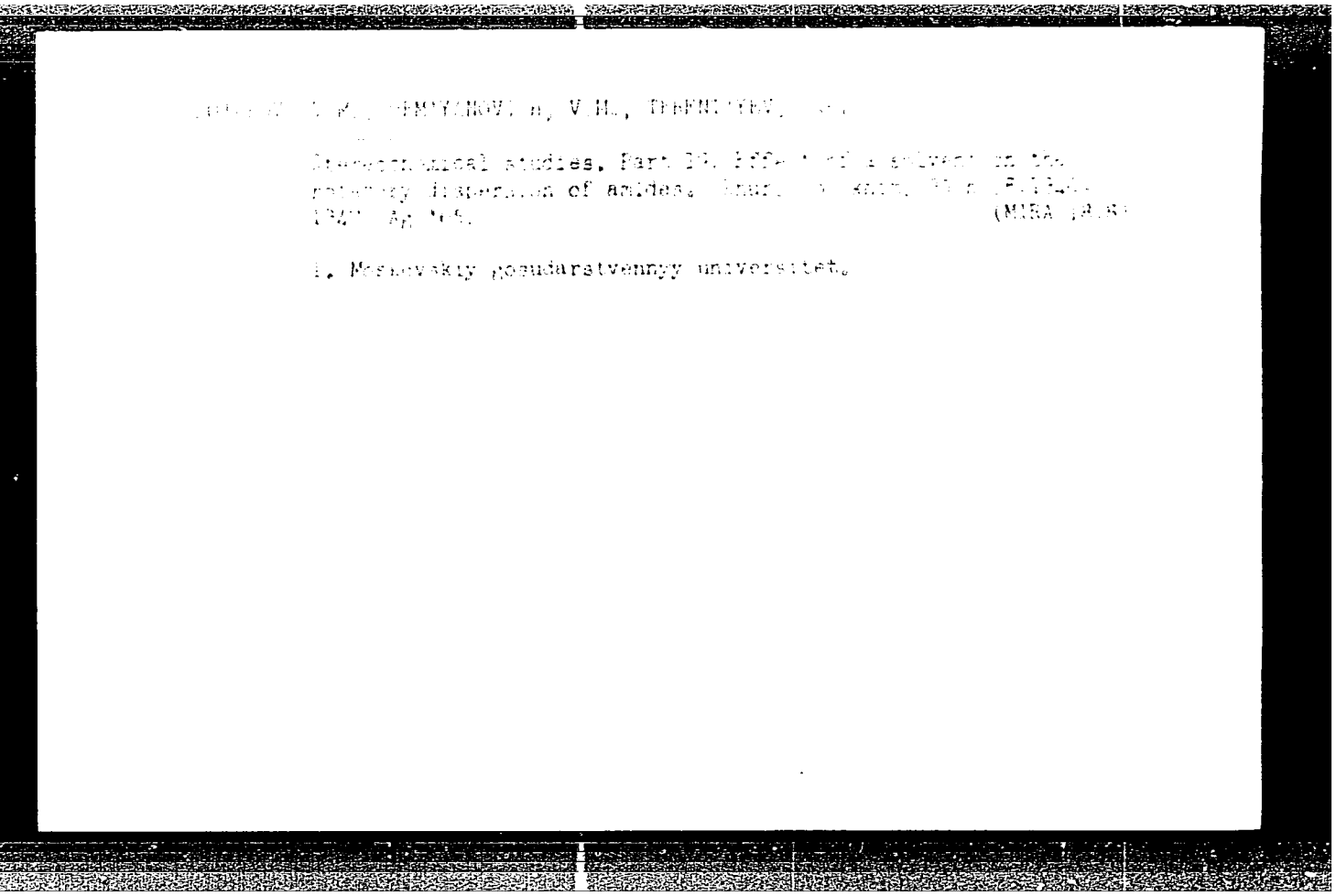
POTAPOV, V.M., [illegible]

Dispersion of the optical rotation of 2,4-dimethyl-4-[illegible]-4-piperidone. Dokl. AN SSSR 157 no. 2 420-421 Jl '64.
(MIRA 17:7)

1. Chlen-korrespondent AN SSSR (for Terent'yev).

TERENT'YEV, Aleksandr Petrovich; POTAPOV, Viktor Mikhaylovich; KOLOSOV, M.N., st. nauchn. sotr., retsenzent; VOL'PIN, M.Ye., doktor khim. nauk, red.

[Principles of stereochemistry] Osnovy stereokhimii. Moskva, Khimiia, 1964. 687 p. (MIRA 17:12)



[illegible], [illegible]; [illegible]

Dispersion of the rotation of some [illegible] optically active α-phenylethylamine. [illegible]
no.1:56-58 [illegible]

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

[illegible]ANOV, V.M.; [illegible]

Spectrophotometric analysis. Report No.2: Determination of o-methoxybenzaldehyde in the presence of [illegible]. Zhur. anal. khim. 20 no.6:731-733 '65. (MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni [illegible].

POTAPOV, V.M.; DEM'YANOVICH, V.M.

Stereochemical studies. Part 18: Determination of amine configuration by the rotatory dispersion method. Zhur. ob. khim. 35 no.9:1538-1545 S '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet.

POTAPOV, V.M.; TERENT'IEV, A.P.; SEROVA, L.I.

Stereochemical studies. Part 21: Dispersion of the optical rotation of 3-amino-3-phenylpropionitrile. Zhur. org. khim. 1 no.8:1444-1447 Ag '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

POTAPOV, V.M., polkovnik meditsinskoy sluzhby

Sling rope for the transfer of stretcher-borne wounded from ship to ship. Voen.med.zhur. no.9:54-55 S '59. (MIRA 13:1)
(TRANSPORT OF WOUNDED, equipment & supplies)

USSR/Engineering - Electric Stations, Winter Operations Jan 51

"Wintertime Difficulties in Operation of Hydroelectric Power Stations," Ya. N. Flekser, Cand Tech Sci, V. M. Potapov, Engr

"Gidrotekh Stroi" No 1, pp 22-24

Describes difficulties experienced in operating one of southern hydroelec. stations during especially cold winter of 1949-50. Water conveying system 10 km long consists of open concrete-lined canal and 3 tunnels, having a siphon spillway in front of 1st tunnel and overflow spillways

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USSR/Engineering - Electric Stations, Winter Operations Jan 51 (Contd)

with wide sills in front of 2d and 3d tunnels. Makes certain conclusions which may be helpful in operating stations under similar conditions.

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POTAPOV, V. M.